

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/22121

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04R1/10 H04R5/033 H04R1/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 099 519 A (GUAN YU) 24 March 1992 (1992-03-24) column 1, line 6 – line 58 abstract	1,21
X	FR 2 755 561 A (NEILL ANDRE O) 7 May 1998 (1998-05-07) page 2, line 6 – line 17 figure 5 page 6, line 8 – line 30 page 3, line 3 – line 34	21
A	— — —/—	1-20, 22-30

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 November 2002	25/11/2002
Name and mailing address of the ISA European Patent Office, P.O. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-8016	Authorized officer Dionisi, M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/22121

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 45937 A (MORRILL JEFFREY C) 15 October 1998 (1998-10-15) page 2, line 2 - line 17	21
A	claim 1 -----	1-20, 22-30

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/22121

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5099519	A	24-03-1992	NONE			
FR 2755561	A	07-05-1998	FR	2755561 A1		07-05-1998
WO 9845937	A	15-10-1998	US	6175633 B1		16-01-2001
			AU	6889798 A		30-10-1998
			WO	9845937 A1		15-10-1998